REMARKS

The claims are claims 1, 3, 4 and 6 to 10.

The objection to the drawings is cured by amendments to the application. The application has been further amended at several locations to correct minor errors and to present uniform language throughout. The amendments include correction of those errors noted by the Examiner.

Claims 1, 2, 4 and 6 are amended for greater clarity. Claims 3 and 5 are canceled. New claims 7 to 10 are added.

Claims 1, 2, 4, 5, 6 were rejected under 35 U.S.C. 102(e) as being anticipated by Liang et al U.S. Patent No. 5,732,086.

Claims 1 and 7 recite subject matter not anticipated by Liang et al. Claims 1 and 7 each recite "at least one supervisory data processing node periodically transmitting a receipt acknowledge data packet to each other data processing node." This recitation differs from the teachings of Liang et al in at least two ways.

First, this language recites "periodically." This means repetitively at the end of a time period. Liang et al does not teach transmitting his initiation message periodically. Liang et al teaches this transmission upon the occurrence of specific events. Liang et al states at column 5, lines 59 to 62:

> "The above messages are dispatched and handled upon the occurrence of an 'event'. Those events are as follows; initialization; disconnection; time out; node isolated; node admitted; link failed and link added."

Thus Liang et al teaches transmitting the initiation message at differing times than recited in claims 1 and 7. The Applicants respectfully submit that Liang et al fails to teach that the claimed transmission occur "periodically." Accordingly, claims 1 and 7 are not anticipated by Liang et al.

Second, this language recites "to each other data processing node." Liang et al teaches transmission of his initiation message to only the adjacent nodes and not to "each other" node as recited in claims 1 and 7. Liang et al states at column 6, lines 1 to 3:

> "The INIT message is transmitted by each initializing node to notify its neighbors about its existence and to ask for admittance to the network."

Liang et al fails to teach that any node receiving such an INIT message forwards it to another node. Upon network initialization before all the links are known, a node cannot forward a message. Thus Liang et al teaches transmission of his INIT message to a different group of other nodes (neighboring nodes) than the group of nodes recited in claims 1 and 7 (each other node). Accordingly, claims 1 and 7 are not anticipated by Liang et al.

Claim 4 recites subject matter and claim 7 recites further subject matter not anticipated by Liang et al. Claim 4 recites "at each data processing node storing an indication of node IDs corresponding to each adjacent output connected node" and "routing the received data packet to an adjacent output connected node if the header of the data packet includes a node ID matching the corresponding stored indication of node IDs for the adjacent output connected node." Claim 7 similarly recites "at each data processing node storing for each output port an indication of a set of node IDs to be reached via that output port" and "routing the received data packet to an output port if the header of the received data packet includes a node ID within the corresponding stored indication of node IDs for that output port." This is disclosed in the application at page 14, lines 9 to 18 in conjunction with ID_RIGHT 812 and ID_LEFT 813 illustrated in Figure 8. This storage of the network connection data has the advantage of also specifying at each node the routing of each message to be forwarded. Liang et

al fails to teach this manner of storage of the network connection and routing data. Liang et al states at column 6, lines 13 to 17:

> "As indicated above, the Dest node field includes the node ID of the ultimate destination of the message. This field is checked by each receiving node to determine whether the message needs to be forwarded to other neighbor nodes."

This disclosure of Liang et al taken in conjunction with the topology table illustrated in Figure 3 indicates that Liang et al does not store connection data in the manner recited in claims 4 and 7. In addition, Liang et al does not state how each node determines how to forward a message destined for another node. However, Liang et al fails to teach the forwarding based upon whether a node ID is stored in a memory corresponding to an output port as recited in claims 4 and 7. Accordingly, claims 4 and 7 are not anticipated by Liang et al.

Claims 2 and 8 recite subject matter not anticipated by Liang et al. Claims 2 and 8 each recite "storing health data at each data processing node concerning the current health operating status of that data processing node." The data referred to at column 14, lines 21 to 31 of Liang et al is the topology data of the network connections such as illustrated in Figure 3. This data of Liang et al indicates only whether a node has responded to an INIT message from its neighboring nodes. This does not concern the health of the current node. This application states at page 20, lines 15 to 18:

> "An ailing node could be identified by non-nominal health parameters in the check-up confirmation receipt. A dead node could even fail to bounce any receipt 1203 back to the supervisor node."

This portion of the application indicates that this invention contemplates a node may be ailing but not dead and incapable of

responding to a receipt confirmation data packet. Liang et al fails to include any teaching of storing such data. Accordingly, claims 2 and 8 are not anticipated by Liang et al.

Claims 2 and 8 recite further subject matter not anticipated by Liang et al. Claims 2 and 8 each recite "transmitting an acknowledge data packet including the stored health data." The data referred to at column 14, lines 16 to 20 of Liang et al is the neighbor link identifier. This data concerns "the link over which said ACK msg was transmitted to said originating node" and has nothing to do with the health of the current node. Accordingly, claims 2 and 8 are not anticipated by Liang et al.

Claim 4 recites further subject matter and claim 9 recites subject matter not anticipated by Liang et al. Claim 4 recites "not routing the received data packet to the current data processing node or to any adjacent output connected node if the header of the data packet includes a node ID not matching the node ID of the data processing node or the stored indication of node IDs for any adjacent output connected node." Claim 9 similarly recites "not routing the received data packet to the current data processing node or to any output port if the header of the data packet includes a node ID not matching the node ID of the data processing node or the stored indication of node IDs for any output port." The OFFICE ACTION cites Liang et al at column 6, lines 22 to 26 and 31 to 32 as anticipating this subject matter. The cited portion of Liang et al at column 6, lines 31 and 32 states:

> "(4) if Dest node is not recognizable, the message is forwarded to the neighbor nodes as in case (2)."

The Applicants understand that the Examiner equates the destination node is "not recognizable" with the language "not matching the node ID of the data processing node or the stored indication of node IDs for any output port" of claims 4 and 9. Claims 4 and 9 recite the

receiving node does not forward the data packet under these conditions. In contrast, the reference to paragraph (2) at column 6, lines 22 to 26 of Liang et al reveals conditions under which Liang et al would forward the message. Thus Liang et al teaches a different response to a not recognizable/not matching message than that recited in claims 4 and 9. Accordingly, claims 4 and 9 are not anticipated by Liang et al.

Claims 6 and 10 recite subject matter not anticipated by Liang et al. Claims 6 and 10 each recite "at each data processing node employing a program running on the CPU core to periodically reset a timer in the bridge circuit and using the bridge circuit to not route any received data packet to the current data processing node or to any adjacent output connected node upon expiration of a time of the timer, whereby a data processing node having a failed CPU core absorbs all received data packets." This differs from the teaching of Liang et al in at least two ways.

Firstly, claims 6 and 10 recite a different time out function than that taught in Liang et al. The OFFICE ACTION cites claims 2 and 3 of Liang et al as anticipating the recitation of not routing any data packets to the current node upon expiration of the timer. The Applicants respectfully submit that the time out in the cited portion of Liang et al differs from the time out recited in claims 6 and 10. Liang et al teaches "associating a null value" in the topology table upon failure to receive an ACK message from a node in response to an INIT message. This process clearly involves two nodes within the network, a first node originating an INIT message and a second node responding with an ACK message. In contrast, claims 6 and 10 recite a single node where the CPU resets a timer in the bridge circuit of the same node. Thus this function differs from and is not anticipated by Liang et al.

Secondly, the claimed action taken differs from the action taught in Liang et al. The OFFICE ACTION cites the first logic

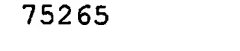
means of claim 1 of Liang et al as anticipating the action taken in response to a time out. This portion of claim 1 of Liang et al teaches storing a topology table based upon receipt or non-receipt of ACK messages from nodes adjacent to the originating node. Upon failure to receive an ACK message within the time allowed, Liang et al teaches placing a null value in the topology table for nonresponding nodes. This topology table is transmitted to all active nodes. Such an entry in the topology table presents other nodes from sending messages to the nulled node. In contrast, the recitations of claims 6 and 9 recite preventing routing a received data packet within the node or forwarding the data packet to another node upon time out. The language "whereby a data processing node having a failed CPU core absorbs all received data packets" is key here. In Liang et al a node not responding and thus causing the cited time out would never be sent a message because its node ID would not be in the topology table. Claims 6 and 10 recite that the timed out node may receive a data packet but can't use it or forward it. Accordingly, claims 6 and 10 are not anticipated by Liang et al.

The Applicants respectfully submit that all the present claims are allowable for the reasons set forth above. Therefore early reconsideration and advance to issue are respectfully requested.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

Texas Instruments Incorporated
P.O. Box 655474 M/S 3999
Dallas, Texas 75265
(972) 917-5290
Fax: (972) 917-4418

Respectfully submitted,



Robert D. Marshall, Jr.
Reg. No. 28,527